The After-treatment in Operative Surgery.

BY

JOHN B. ROBERTS, M.D.,

PROFESSOR OF SURGERY IN THE PHILADELPHIA POLYCLINIC AND IN THE WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA.

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THE AFTER-TREATMENT IN OPERATIVE SURGERY.[1]

By John B. Roberts, M.D.,
PROFESSOR OF SURGERY IN THE PHILADELPHIA POLYCLINIC AND IN THE WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA.

It is my custom to send word to the relatives or friends, waiting outside the operating-room, that the operation has been concluded as soon as I begin to apply the sutures. This is a comforting piece of information to those whose anxiety is, perhaps, not realized by the operators and assistants.

I never leave a patient who has been under ether without first assuring myself that the pulse is good and seeing that he is conscious, unless I leave a competent physician in attendance. The directions for after-treatment, unless a trained nurse is present, are usually given in writing and in as detailed a manner as possible.

For the treatment of shock I elevate the foot of the bed, have cans or bottles of hot water placed about the body, and, if necessary, administer digitalis, atropine, ammonia, or strychnine, either by the mouth or hypodermatically. I seldom give any form of alcoholic stimulant during or after etherization, because I believe alcohol and ether to be so similar in physiological effect that their joint administration is unscientific and, perhaps, harmful. An enema or suppository of quinine I often use after operation, and sometimes before, to diminish or avert shock. In moderate degrees of shock I simply let the patient alone, since time is all that is required to restore the functions to their normal vigor. Too much is often done in cases of operative or accidental shock, because the physician is over-anxious and does not give the system time to react; hence the patient is "inundated" with broths, milk, coffee, and stimulants, and, perhaps, poisoned by over-dosing with drugs.

The preliminary hypodermatic injection of morphine and atropine, always given a quarter or a half hour before commencing anæsthesia, probably lessens the shock, and without much doubt diminishes the tendency to vomiting after etherization has been discontinued.

For the nausea and vomiting which occurs after inhalation of ether, I usually do nothing except to have the patient's head so placed that any ejected material may easily escape from the mouth. Little actual vomiting occurs if the patient has been given the preliminary hypo-

[1] Read before the Philadelphia Academy of Surgery, November 2, 1891.

dermatic injection; and especially so if he has taken no food for several hours before the time of operation. The practice of giving drugs to combat the vomiting is, I believe, unnecessary and unreasonable, unless the vomiting should be prolonged and evidently depressing to the patient. Draughts of hot water for the relief of ether vomiting are given by some physiciaus, and in some cases may be desirable, as retching when the stomach is empty is often more disagreeable than vomiting water which has been put iuto the stomach.

I prefer the room kept at a temperature of about 70°, with plenty of fresh air so admitted that the patient shall not be directly in a draught. Too much air is better than too little. The cold rooms and wards found in English homes and hospitals would, however, be objectionable to the average American patient. A hygienic rule which gives to every hospital bed about 100 square feet of floor surface, or about 2000 cubic feet of air space, is desirable. In many places it is impossible to procure this desirable condition. It is to be recollected that the height of a ceiling, without floor space, does not necessarily give good ventilation. I always prefer operating in a hospital rather than in a private house, since the after-treatment can be much better carried out in a modern well-conducted hospital than in any other place. A room in which the sun enters is preferable to one on the shady side of the house. It should be free from contamination by water-closets or badly-draiued washstands.

I believe that curtains and bed-hangings are not objectionable if the operation is conducted and wound-dressings arranged on thorough aseptic or antiseptic principles. The absorbent materials employed in furnishing our houses are objectionable because they retain dust-particles, but this microbe-bearing dust is harmless if it does not come in contact with the wound. I frequently say to my students that I would willingly operate in an ampitheatre containing many thousand persons, if the dust was not stirred up by draughts and the stamping of feet; provided that the seat of operation, my finger-nails, instruments, dressings, and assistants were thoroughly aseptic or antiseptic. I further believe that pretty articles of furniture, pictures, aud even flowers, if the odor is not too strong, add to the comfort of the patient by diverting his attentiou from himself. Freedom from excitement is desirable during convalescence, but the occasional visits of judicious and cheery frieuds relieve monotomy and do no evil. Such friends bring items of news and interest to the invalid which cannot be gotten from those he sees daily. An intelligent nurse, previously unknown to the patient, may increase the value of her ministrations by a wise exercise of conversational powers.

The nursing in operative cases should, in my opinion, usually be done by someone not connected with the patieut by ties of relationship or friendship. The ideal attendant, who is calm, deliberate, wise, firm aud gentle, can do much toward hastening the recovery of the patieut, and

certainly adds greatly to his comfort. I do not consider these qualifications to belong to a nurse who takes the temperature every few minutes, who uses the catheter every few hours, or who wakens the patient at night to ask how he feels.

It goes without saying, that the excretions and soiled dressings should be well disinfected and promptly removed.

The best posture for the patient after operation depends somewhat on the character of the operative procedure to which he has been subjected. A comfortable position without causing muscular strain, and the one which favors drainage, when that is demanded, is the preferable one. It is not necessary that the patient should lie absolutely rigid and motionless upon his back in any case. It is not an uncommon thing for me to find that after operation a patient has lain for eighteen or twenty-four hours, scarcely moving a muscle, except those of the arms and legs. This, practically always, is unnecessary and unreasonable, and is due to fear on the part of the patient or nurse. It is sometimes the result of unnecessary precautions drilled into nurses' minds by surgeons after abdominal operations. The patient can, with safety, be turned a little by having a pillow pushed under the hip and shoulder of one side. This prop may be changed from one side to the other, at intervals, thus securing him much comfort. A change of posture, with or without friction of the limbs and trunk with whiskey or alcohol, relieves the points of pressure on the mattress, and prevents the muscles from becoming stiff.

Many patients are not allowed to sit up as soon as they might, and are kept in bed far too long. Amputation of a breast with clearing out of the axilla, for instance, is not a cause for retaining the patient long in bed. In such a case there is no objection to the patient sitting up on the second day, or going about the house and garden in two or three days, if the temperature and pulse are normal. Of course, this matter must necessarily be varied with the character of the operation, the course of the case, and the temperament of the patient. I am convinced, however, that too many restrictions are often put upon patients because of the traditions of surgeons before the aseptic era.

Many cases need little or no medicinal treatment subsequent to operation. The wound, if it continues free from suppurative or septic infection and is not irritated by too tight sutures, is practically painless. The immediate smarting of the wound, often very slight and at times altogether absent, is to a great degree avoided by the preliminary hypodermatic injection of morphine and atropine. Acute pain after operation usually means that the sutures are too tight, the dressings badly applied, or that the wound is not free from bacterial infection.

Because of the discomfort occasioned by the surroundings and the restraint of the dressings, and because of the nerve strain of the day, I, as a rule, give bromide of potassium and chloral toward bedtime of the

day of operation, and, perhaps, also the next night. I usually give forty grains of potassium bromide and fifteen or twenty grains of chloral. Sometimes it is necessary to repeat this dose once or twice during the night, at intervals of about an hour. This anodyne I administer more for the purpose of allaying the nervous excitement than because there is actual pain. It has not the objection of morphine, which diminishes the secretions, constipates the bowels, and impairs the appetite.

Ordinary cases need no other medicinal treatment, except an occasional laxative to keep the bowels open. I agree with Dr. Agnew, a former president of this Academy, who says: "So long, however, as a patient is doing well, drugs are an impertinence."

If there has been much bleeding, I give iron and quinine as a tonic, and occasionally I use these drugs as a placebo when there has been no special hemorrhage. Opiates are always to be avoided in the after-treatment, if possible. The stress recently laid upon this point by abdominal operators is simply an axiom of good general surgery which I have long followed. The use of frequent doses of opiates indicates in most medical and surgical conditions an unwise physician or surgeon. Their administration masks symptoms, interferes with secretion, and is liable to establish the opium habit. If I am obliged to use morphine or opium, I do not give it hypodermatically, as this method is the most seductive. The name of the drug used is not mentioned in the patient's hearing.

The various antipyretics now so fashionable, I practically never use. The elevation of temperature, which occurs in aseptic cases within about thirty-six hours after operation, which is supposed to be due to absorption of fibrin ferment, needs no treatment; nor does fever resulting from nervous excitement. A rise of temperature presumably due to septic changes in the wound is to be treated by renewal of the dressings, irrigation of the wound, cutting of sutures, or cleansing of drainage-tube rather than by medicines which act simply by depressing the temperature. They afford the surgeon a false sense of security and may mask the true condition of the wound. Like opiates, they conceal truth, perturb the normal functions, and simply combat a symptom which is meant by Nature to call the surgeon's attention to the fact that his work needs revision.

A smoker may be allowed his cigar a few hours after operation, unless there is special objection to its action upon his nervous system. A cigar, when the patient is accustomed to the use of tobacco, will often take the place of an anodyne.

The bladder must be emptied and the bowels opened, of course, and I make it a rule to especially inquire, of both patient and nurse, as to these matters. There is no need, in most cases, however, of a nurse catheterizing a patient within a few hours after operation. Retention of

the urine for twelve or fifteen hours will, in ordinary cases, do no harm, and the early use of a catheter, except, perhaps, in abdominal operations, is an unnecessary annoyance, and a discomfort to the patient. It is, also, liable to make necessary the frequent use of the catheter when such necessity would not have arisen if the urine had not been drawn for the first time.

The question of diet is an important one, as to which surgeons vary very much in practice. Ordinarily, I allow no food for six or eight hours after the recovery from etherization, and I instruct the friends of the patient that no harm will be done if food is not taken until the next day. In abdominal cases I insist that no food whatever shall be taken for at least twenty-four hours. I usually prescribe milk and broth as the diet for the first few days, but I rather avoid milk in abdominal cases. I rarely use extracts of beef or any of the pre-digested foods; but this, perhaps, is due more to the fact that I find milk or broth made in the household quite sufficient for my purpose, than that I have any objection to these articles.

A liberal diet of easily digested food, such as milk, toast, baked potatoes, and light puddings, is not objectionable after three or four days; in truth, I defer a great deal to the patient's wishes and taste in this particular. The old idea that patients must be half starved to prevent inflammation, is erroneous, since any violent inflammation which occurs subsequent to operation is practically always mycotic.

In the American edition of *Druitt's Surgery*, of 1887, appears the following remarkable statement: "When septic inflammation is to be found, starvation diet may be a very important preventive, as it seems to be in compound injuries of the skull." This relic of ancient surgery, which it surprises me to find in a book published so recently, is, I fear, accepted by not a few operators to this day.

Sucking ice does not allay thirst as quickly as water. A large amount of water may be given if it is administered in comparatively small quantities at a time. Intensely cold water is, of course, objectionable. The administration of water is especially necessary if there has been much bleeding during or before the operation. Patients are often distressed by the enforced absence from water at times insisted upon by the attendant during the first few days after an operation.

Alcoholic stimulants are used by me to a very limited degree in the after-treatment of operations, as I believe they are frequently given in larger quantities and oftener than is at all necessary. The practice of giving all surgical patients milk punch or wine-whey is reprehensible.

In large wounds I generally remove the first dressings at the end of twenty-four hours, because of the oozing which usually takes place. If the wound has been washed or irrigated with antiseptic solutions, the oozing is liable to be abundant and saturates many thick-

nesses of gauze. The removal of the soiled dressings at this time enables me to apply clean antiseptic gauze, to cut tight sutures, if any be too tight, and to take out a drainage-tube if there is no further use for it. In addition to this, it allows the dressings to be applied more neatly and satisfactorily than can be done when the patient is recovering from etherization. If the wound is one in which little oozing is expected, no change is made in the dressing at this time; and in all cases no change in the dressings is made after the first twenty-four hours, unless a rise in temperature, discomfort of the patient, or soaking of the discharge to the surface indicates a necessity for so doing.